



# **Business Requirements Document**

(Guide S50 Version 1.0)

*for*

**DocuCare**

**<Version 1.0>**

*Prepared for*

**Frederick L. Revilleza Jr.**



**College of Computer Science**

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*Prepared by*

Apas, Andri M.

Cartilla, Craig Matthew

Tigley, Aeron Raye V.

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# 1.DOCUMENT REVISION LOG

Table 1. Document Revision Log

Date	Author	Version	Reason for Change
8/31/2024	Apas, Cartilla, Tigley	1.0.0	Proposing a draft for the first version of DocuCare database.
9/01/2024	Tigley	1.0.5	Two features, Medicine Browsing and Lab Test Management, were removed to focus on the 6 core requirements. Medicine Browsing was deemed unnecessary, and Lab Test Management was not needed for the core system.

# 2.DOCUMENT REVIEWERS

Table 2. Document Reviewers

Name & Title	Role	Approval Date	Version

# 3.APPROVER & SIGNOFF

Table 3. Client Acceptor (Project Sponsor)

Name & Title	Role	Approval Date	Version
Signature:			

## 4. INTRODUCTION (Analysis Description)

### 4.1 DOCUMENT PURPOSE

This document outlines the functional requirements for “DocuCare”, a web-based Health Records Management System designed to improve healthcare delivery by efficiently managing patient information, appointments, billing, medication, and communication between healthcare providers and patients. This document’s purpose is to define the essential functions of the system that meet the user needs and provide a foundation for further development and testing.

“DocuCare” aims to streamline healthcare processes, enhance patient care, and ensure easy access to critical health information for both patients and healthcare providers. The target audience for this document includes project managers, software developers, healthcare providers, and other stakeholders involved in the development and implementation of the system.

### 4.2 DOCUMENT SCOPE

The scope of "DocuCare" includes the core functionalities necessary to manage health records effectively for both patients and healthcare providers. The system is designed to be user-friendly, secure, and accessible, ensuring that all users can efficiently interact with the platform. This includes:

- 1. Patient Profile Management**
- 2. Appointment Scheduling and Management**
- 3. Billing and Payment Processing**
- 4. Medical Alerts and Notifications**
- 5. Medication Management**
- 6. Doctor and Healthcare Provider Management**
- 7. System Workflows and Processes**
- 8. Performance and Reliability**
- 9. Limitations and Constraints**
- 10. Business Rules and Policies**

These core functionalities aim to enhance the efficiency of healthcare management and improve patient care by providing a comprehensive, integrated system for handling health records and related tasks.

## 4.3 DOCUMENT AUDIENCE

**Table 4. Document Audience**

<b>Document Audience</b>	<b>Location</b>
Project Managers	Responsible for overseeing the overall progress of the DocuCare project. They ensure that the project stays on schedule, within budget, and meets its objectives. They will use this document to understand the scope, requirements, and milestones of the project. They may be located in the central office or working remotely, depending on the organization's structure.
Software Developers	Tasked with the design, development, and implementation of the DocuCare system. They need to interpret the functional requirements and translate them into code. This document serves as a blueprint for their work, guiding the development process and ensuring alignment with project goals. Developers may work from the development office or remotely.
Healthcare Providers	Provide essential input on clinical workflows, regulatory compliance, and user needs. They ensure that the system is designed to meet practical needs and adhere to industry standards. Their feedback is crucial for the system's usability and effectiveness in real-world healthcare settings. They can be found in healthcare facilities or may contribute remotely.
Stakeholders	Encompass any additional parties who have a vested interest in the system's development and implementation, such as funding bodies or partners. They review this document to understand the project's progress and impact. Their locations vary based on their role and involvement.
End-Users	Include medical staff, administrative personnel, and patients who will interact with the system on a daily basis. Their input is crucial for ensuring the system is user-friendly and meets their needs. They will use the system based on the specifications outlined in this document. End-users might be found in various healthcare settings or interacting remotely.

## 4.4 BUSINESS ANALYSIS APPROACH

The purpose of the Analysis phase in the DocuCare project was to identify and document the requirements related to health records management with a focus on functionality, usability, and compliance. This phase aimed to provide detailed documentation necessary for guiding the development, testing, and implementation phases of the project. It involved reviewing existing information and defining new or adjusted requirements to ensure DocuCare meets the needs of healthcare providers and adheres to industry standards.

The approach included:

- **Business Analysis Planning and Monitoring:** The analysis was managed to align with the project's objectives, ensuring that the process remained focused and relevant. Regular reviews and checks were conducted to confirm that the analysis aligned with the project's goals and requirements.
- **Elicitation:** Requirements were gathered through interviews with healthcare providers, surveys, and focus groups. The analysis emphasized understanding user needs and preferences regarding health record management, ensuring that the system supports effective patient care and administrative efficiency.
- **Requirements Management and Communication:** Effective coordination was maintained to ensure that all stakeholders were informed of developments. Changes in requirements were documented meticulously and communicated to all relevant parties to maintain clarity and alignment.
- **Requirements Analysis:** All collected requirements were scrutinized to confirm that they were comprehensive, understood, and aligned with the business goals of the **DocuCare** system. This involved ensuring that requirements were feasible and addressed both technical and user needs.
- **Solution Assessment and Validation:** Potential solutions were evaluated against the identified requirements to ensure they addressed the business needs effectively. This assessment ensured that the proposed solutions were viable, practical, and aligned with the project's objectives.

The inputs to this phase included:

- **Business Case:** Justified the project by outlining the business needs, benefits, and objectives. Ensured alignment of requirements with strategic goals for health records management and patient care.
- **Master Project Plan:** Provided the project timeline, deliverables, and milestones. Guided the Analysis phase to align with the overall project schedule and activities.
- **Project Charter:** Defined the project's scope, objectives, and stakeholders. Ensured requirements were relevant and addressed the project's specific needs.
- **Business Analysis Work Plan:** Outlined the approach, methods, and resources for business analysis. Included timelines, responsibilities, and tools for systematic requirements gathering.

## 5. System Architecture and Functional Overview

### 5.1 Platform Overview and System Components

DocuCare is a web-based health record management system designed to assist healthcare providers in managing a range of healthcare functions. These may include management at the level of a patient profile, billing and payment processing, medical alerts, appointment management, medication management, doctor management, healthcare provider management, and choice of check-ups or tests.

**Patient Profile Management:** Allows a user to create, update, and delete patient profiles, which include personal information and medical history, including past diagnoses and treatment.

**Payment Processing and Billing:** It creates bills for provided services, consultation, and procedure and processes payments through various modes like credit/debit cards and online payment gateways, it maintains all financial transactions.

**Medical Alerts and Appointment Management:** The system will automatically send reminders about upcoming appointments and will notify the patient regarding critical medical alerts or follow-ups required.

**Medication Management:** It helps health providers to prescribe and manage their patients' digital prescriptions, creating a history. It is integrated with the system of the pharmacy for fulfilling of prescription.

**Doctor and Healthcare Provider Management:** The system allows creating, editing, and managing doctors and healthcare providers' profiles.

**Check-Up and Test Selection:** The system maintains a list of available medical tests and check-ups. Thus, patients can choose the type of check-up or test they want, view the prices, and make appointments based on availability.

#### **Systems in use:**

**Patient Management System:** Patient profile, case history, and managing digital medical records.

**Billing and Payment System:** Bill generation, payment processing regarding the medical services.

**Notification System:** It allows the issuance of medical alerts, appointment reminders, and all other sorts of notices to the patients; this will also handle advance notification preferences expressed by the patient.

**Medication Management System:** It allows digital prescriptions, keeps a record of medication history, and integrates with pharmacies.

**Doctor Management System:** It manages doctor and healthcare provider profiles; it manages the assigning of patients to doctors and vice-versa.

**Check-Up and Test Booking System:** It allows the patient to view and select available medical tests/check-ups along with their price.

## 5.2 Functions Requirements

**Table 5. Function Overview**

Function	Description
<b>Patient Profile</b>	Manages patient profiles, including creating, updating, and deleting profiles. Stores and retrieves medical history, attaches and manages digital medical records.
<b>Billing and Payment Processing</b>	Generates bills for medical services, processes payments through multiple methods, and maintains records of all financial transactions.
<b>Medical Alerts and Appointments</b>	Sends automated reminders for appointments, notifies patients of critical alerts or follow-ups, and manages notification preferences.
<b>Medication Management</b>	Creates and manages digital prescriptions, tracks medication history, and integrates with pharmacies for prescription fulfillment.
<b>Doctor and Healthcare Provider Management</b>	Manages profiles of doctors and healthcare providers, assigns doctors to patients, and maintains records of consultations and recommendations.
<b>Check-Up and Test Selection</b>	Provides a list of available medical tests and check-ups, allows patients to select and book appointments, and shows prices and availability for selected tests.



## 5.3 Logical Data Model

